

REMARKS

Claims 1-47 are pending. As a preliminary matter, Applicants wish to thank the Examiner for the notice that Claims 11-47 are allowed and Claims 2-10 would be allowed if rewritten in independent form. Applicants also wish to thank the Examiner for extending an Examiner interview of October 20, 2004. Although no agreement was reached, the Examiner further clarified his rejections as indicated in the remarks below.

Independent Claim 1

Claim 1 solely stands rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,462,738 (Kato). The Office Action on pages 2-3 cites to the Abstract for generally teaching calculating the parameters for the Bezier triangles, however, no teaching of calculating a central control point could be found in the Abstract. The Office Action on page 3, lines 14-16, cites to FIG. 9 of Kato for teaching “calculating a central control point using the vertex parameters of each of the three vertices and the control points corresponding to the three edges.” Nevertheless, the Examiner during the Examiner interview and prior Office Actions assert that the control point b_{111} as taught in FIG. 9 of Kato corresponds to the claimed central control point. (Office Action dated December 17, 2003, ¶2, last sentence).

Equation 914 as shown in FIG. 9 is explicitly given as follows:

$$b_{111} = 1/3 (v_0 + v_1 + v_2) + 1/3 (t_{00} + t_{11} + t_{22}) - 1/3 (t_{10} + t_{21} + t_{02}).$$

(Kato, FIG. 9, Col. 8, lines 1-5). According to Kato, “the distance the Bezier patch will project from the plane containing the endpoints of the patch is *computed* responsive to equation 914.” (Kato, FIG. 9, Col. 8, lines 1-5) (emphasis added). Therefore, since Kato explicitly teaches computing b_{111} responsive to equation 914, Kato therefore teaches the method of calculating b_{111} according to explicit equation 914. As shown in FIG. 9 and described in the specification, Kato teaches that equation 914 explicitly *calculates* b_{111} not as a function of

control points corresponding to the three edges but rather *calculates* b_{111} as an explicit function of vertices v_0, v_1, v_2 and tangent vectors $t_{00}, t_{11}, t_{22}, t_{10}, t_{21},$ and t_{02} . (Kato, FIG. 9, equation 914).

Applicants incorporate all relevant remarks from the previous Office Actions. Claim 1 recites, among other things, a method for, “*calculating* a central control point using the vertex parameters of each of the three vertices and the control points corresponding to the three edges.” The vertex parameters for each vertex includes three-dimensional coordinates and a normal vector. The control points correspond to each edge of the three edges of the triangular primitive. Equation 914 in Kato makes no reference to calculating b_{111} based on any control points, let alone the control points in equations 906 through 913. For example, Kato does not explicitly calculate b_{111} based on any control points including b_{210} and b_{120} in equation 914 for point b_{111} . Since Kato teaches that equation 914 explicitly *calculates* b_{111} as a function of the tangent vectors ($t_{00}, t_{11}, t_{22}, t_{10}, t_{21}$ and t_{02}), rather than *calculates* b_{111} as a function of control points corresponding to the three edges, Kato calculates completely different functions calculated in a completely different way resulting in a completely different method than recited in Claim 1. As a result, equation 914 cited in FIG. 9 of Kato is limited to the method of calculating point b_{111} as a function of vertices and tangent vectors and therefore explicitly teaches a completely different method from, among other things, “calculating a central control point using the vertex parameters for each of the three vertices and the control points corresponding to the three edges.” Nevertheless, the Examiner argued during the Examiner interview that equation 914 may be re-written as a function of other parameters through a series of substitution steps. However, the Examiner argues steps that are not recited in Claim 1, among other things, the series of substitution steps required to re-write equation 914. Consequently, for at least these reasons and the reasons stated in the prior responses, Kato does not disclose, among other things, “calculating

a central control point using the vertex parameters for each of the three vertices and the control points corresponding to the three edges” as recited in Claim 1. Accordingly, reconsideration of the rejection and a showing of all the elements as arranged in Claim 1 is respectfully requested. Applicants submit that Kato neither discloses, teaches nor suggests Applicants’ claimed subject matter as arranged in the Claim 1 and therefore, fails to anticipate Claim 1.

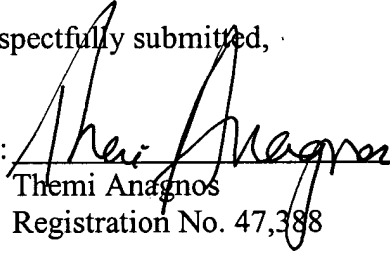
Applicants respectfully submit that the claims are in condition for allowance, and an early Notice of Allowance is earnestly solicited. The Examiner is invited to telephone the below-listed attorney at 312-609-7970 if the Examiner believes that a telephone conference will expedite the prosecution of the application.

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